

## Risk Management

As the electric industry is restructured, electric providers are being exposed to new challenges and new risks. TVA takes a proactive approach in managing risks to maintain sound financial and operational performance and to ensure that power rates in the Tennessee Valley are competitive now and in the future.

Energy marketers, independent power producers and other privately-owned electric industry participants have the goal of maximizing shareholder wealth. These entities may at times develop growth strategies where risks are amplified, seeking to yield greater returns.

TVA's mission is different from these entities and results in a greater aversion to risk. TVA seeks to keep power rates low rather than maximize profit. TVA's risk aversion is illustrated in the fact that TVA does not take speculative positions in the market in hopes of making huge gains. TVA constantly monitors its exposure to various operational, credit and market risks, and only takes risks where necessary in the normal course of its operations.

### Policy Overview

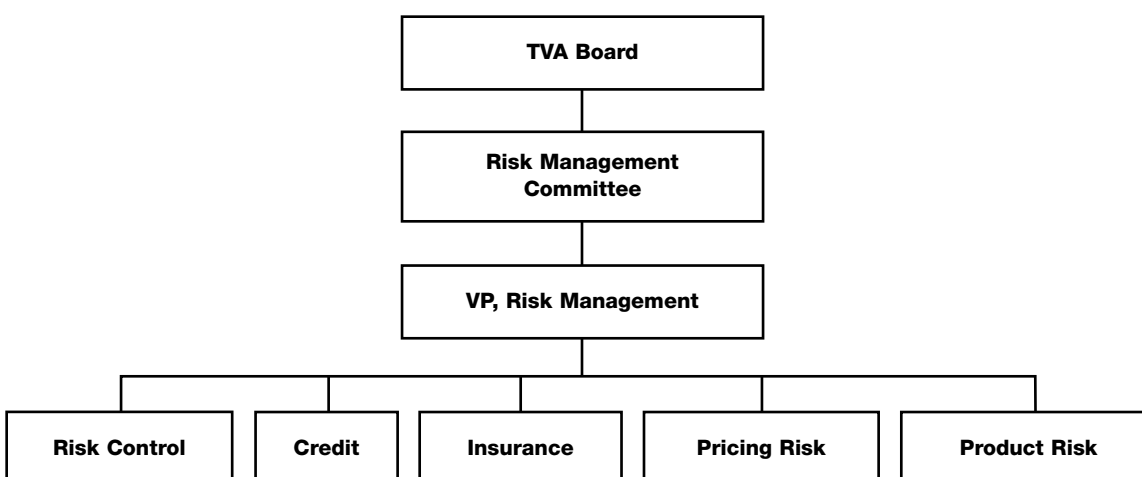
TVA, like any company, is exposed to various risks in the normal course of operation. On occasion, where business conditions dictate that TVA assume risk beyond its established tolerance level, TVA will put mechanisms in place to control, transfer or mitigate its exposure to these risks so that there will not be an adverse impact on TVA's ability to provide reliable, affordable power to the Valley.

TVA's risk policy provides guidance and governance over the daily exposure that TVA has to operational, credit and market risks. The focus of TVA's policy is to proactively manage activities that pose a potential high risk to TVA, by ensuring proper management oversight, mitigation of these risks and effective internal controls. As risks continually evolve with the marketplace, TVA's policy is constantly reevaluated to ensure adequacy.

## Risk Management Structure

TVA is managed by a Board of Directors, who ultimately determine TVA's strategic direction and approve TVA's risk policies. A Risk Management Committee, which reports to the Board of Directors, reviews and approves controls and procedures for risk management activities across TVA, including the oversight of models and assumptions used to measure risk. The committee also reviews counterparty exposure limits and establishes formal procedures regarding the use of hedging instruments.

The Vice President of Risk Management provides control mechanisms to measure and monitor market risk and review firm-wide limits. TVA also has an independent Inspector General (IG) who conducts audits and investigations related to TVA programs and operations, while keeping the TVA Board and Congress fully and currently informed about problems and deficiencies relating to the administration of such programs and operations. The IG assesses enterprise risks through these audits, reviews and investigations, providing additional checks and balances to ensure that risks taken are appropriate and within established guidelines. Under recent legislation, TVA's Inspector General will be a presidential appointee.



## The Risks TVA Manages

**Operational Risk** – *The exposure that results when internal practices, policies, processes and systems do not perform as intended.*

TVA has established detailed policies and procedures to minimize exposure to operational risks in its business. Of primary importance is TVA's exposure associated with the cost of providing power.

TVA enters into electricity forward contracts, which specify a price and amount of electricity to be delivered in the future, for the sole purpose of limiting or otherwise hedging risks directly associated with meeting power supply obligations. These transactions qualify for normal purchase and sale accounting under generally accepted accounting principles.

TVA risk management policies provide the use of instruments such as forward contracts to help manage TVA's financial exposure. TVA's policy prohibits the use of forward contracts for speculative purposes or profit-taking and prohibits TVA's traders from trading their own book. TVA only makes trades that hedge physical positions. The physical hedging of power supply obligations is discussed more fully in the overview of TVA's Energy Trading Structure immediately following this section on risks.

**Credit Risk** – *The exposure that results from a counterparty's failure to deliver on an obligation.*

All companies, including TVA, are exposed to the risk of financial losses in the event of counterparty nonperformance on contractual obligations. Accordingly, TVA has established controls to determine the creditworthiness of counterparties in order to proactively minimize exposure to this type of credit risk.

TVA assigns a credit rating to each of the counterparties with which it enters into an agreement. This credit rating reflects TVA's opinion of the counterparty's ability to fulfill its obligations. Each rating category has a corresponding credit exposure level. The creditworthiness of each counterparty is monitored daily and TVA requires credit enhancements whenever credit exposures exceed a predetermined level or limit.

**Market Risk** – *The exposure of a position that results from changing market conditions.*

TVA is exposed to various types of market risks including changes in interest rates, foreign currency exchange rates, equity market prices, and commodity prices. TVA manages the volatility attributable to these exposures with non-speculative, non-tradable derivative transactions such as interest rate swap agreements, foreign currency swap contracts, commodity index swap contracts, and option contracts.

In 1996, for example, TVA entered into a currency swap agreement to hedge against changes in foreign currency exchange rates. TVA issued DM1.5 billion in bonds and used a currency swap agreement to hedge against fluctuations in the dollar-to-Deutsche Mark exchange rate.

TVA also entered into currency swap agreements in 2001 and 1999, as hedges for sterling-denominated debt transactions in which TVA issued £250 million and £200 million in bonds, respectively. Any gains and losses on these debt instruments due to foreign currency transactions, referred to as translation gains or losses, are offset by losses and gains on the swap agreements.

In 1997, TVA issued \$300 million of inflation-indexed, accreting principal bonds. The 10-year bonds have a fixed coupon rate that is paid on an inflation-adjusted principal amount. TVA hedged the exposure to inflation from these securities through a swap agreement.

## **Energy Trading Structure**

TVA's Bulk Power Trading group is responsible for buying and selling power in the wholesale electricity market ensuring the optimum utilization of TVA's system assets. TVA's Fuels Supply group is responsible for buying fuel or occasionally selling surplus fuel in the coal, natural gas, and fuel oil markets for meeting systems requirements. This group ensures the optimization of procuring TVA's system fuel needs.

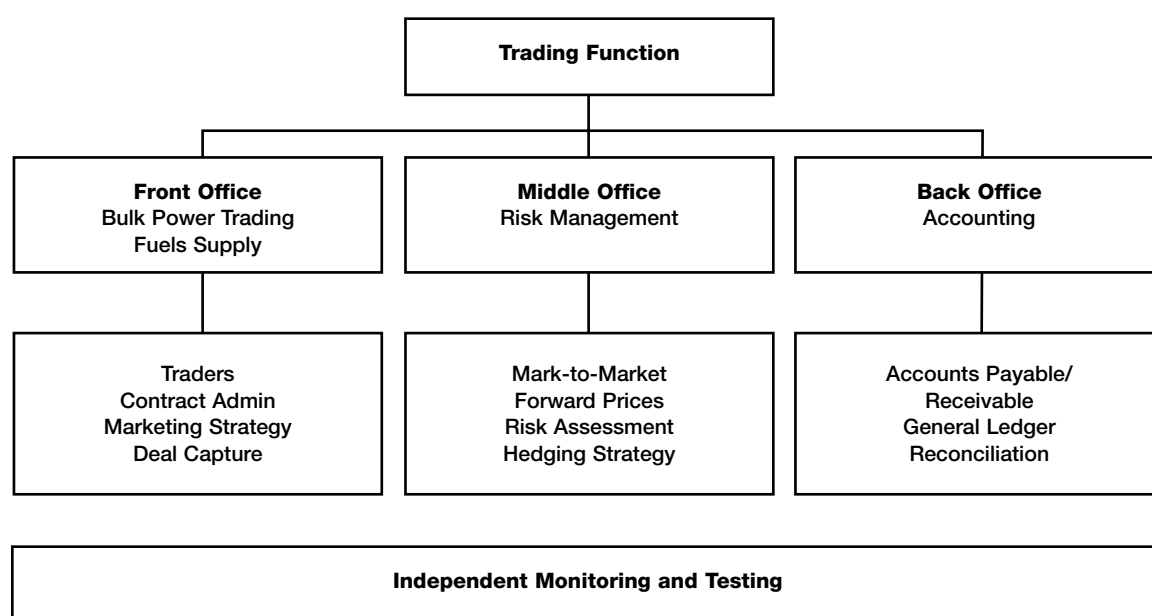
The first priority of TVA's commodity trading activity is to ensure that controls are in place prior to making a market transaction. TVA's trades are physical in nature and are made to effectively manage its power and fuel portfolios.

The goals of TVA's power and fuel trading program are to:

- Support ongoing physical delivery and scheduling activities.
- Balance electric wholesale and fuel needs.
- Offer innovative, tailored energy products to wholesale customers.
- Manage TVA's resource portfolio to assist in keeping power rates for wholesale and directly-served TVA customers in the Valley as low as feasible.

## Overview of TVA's Trading Organization

The duties of TVA's trading organization are divided into front, middle, and back office functions, to ensure a separation of activities. The independent oversight and reporting of risks are separated from the execution of the controls over risk management and mitigation.



## Front Office – Bulk Power Trading and Fuels Supply

The physical trading activities of TVA's Trading group are managed by different groups: Bulk Power Trading for electricity trading, and the Fuels Supply group for coal, natural gas and fuel oil trading. These groups are responsible for the front office functions that balance the resource needs of the TVA system to ensure optimum utilization of TVA's system assets. Both groups have established trading strategies and execute trades in compliance with TVA's risk management policies.

## Middle Office – Risk Management

Risk management activities, or middle office activities, are performed chiefly by TVA's Risk Management department. This department monitors TVA's trading activity and provides administrative support ensuring that trading activities are effectively recorded, measured, monitored and controlled in compliance with established strategy and TVA policy.

## **Back Office - Accounting**

The accounting activities that ensure TVA's records properly reflect the current state of trading activities are referred to as the back office functions. These activities include billing and coordinating payment with counterparties.

## **Summary**

TVA, like any company, is exposed to various risks in the normal course of operation. TVA constantly reevaluates its risk management policies for adequacy. TVA will continue to be proactive in mitigating risk exposure as risks evolve with the marketplace to ensure that TVA's mission of providing reliable, affordable power is not adversely affected.